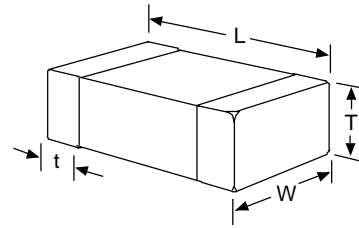


# MULTILAYER CERAMIC CHIP INDUCTORS

## HIGH FREQUENCY PERFORMANCE

# MHI SERIES



- Wide range - 0.6nH to 470nH, up to 10GHz 420mA
- Advanced monolithic construction especially suited for high frequency applications
- Excellent Q and SRF characteristics
- Operating temperature range: -55°C to +125°C
- Standard tolerance: ±5% (±0.3nH on values <6.8nH)

**RCD Type MHI0201 is the world's smallest chip inductor!**

Ind. (nH)	Ind. Code	Test Freq. (MHz)	MHI 0201*				MHI 0402				MHI 0603				MHI 0805			
			Q Min. @100 MHz	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)	Q Typ. @100 MHz	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)	Q Typ. @100 MHz	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)	Q Typ. @100 MHz	SRF Min. (MHz)	DCR Max. (Ω)	Rated Current (mA,DC)
0.6	N60	100	11	>6,000	0.08	420	-	-	-	-	-	-	-	-	-	-	-	-
0.8	N80	100	11	>6,000	0.09	410	-	-	-	-	-	-	-	-	-	-	-	-
1.0	1N0	100	11	>6,000	0.10	400	11	10,000	.09	300	14	10,000	0.05	300	-	-	-	-
1.2	1N2	100	11	>6,000	0.13	280	11	10,000	.09	300	14	10,000	0.05	300	-	-	-	-
1.5	1N5	100	11	>6,000	0.16	280	11	6,000	.12	300	14	6,000	0.10	300	21	4000	0.10	300
1.8	1N8	100	11	>6,000	0.16	275	11	6,000	.12	300	10	6,000	0.10	300	18	4000	0.10	300
2.2	2N2	100	11	>6,000	0.18	220	10	6,000	.14	300	12	6,000	0.10	300	18	4000	0.10	300
2.7	2N7	100	11	>6,000	0.21	220	10	6,000	.14	300	13	6,000	0.10	300	19	4000	0.10	300
3.3	3N3	100	11	>6,000	0.30	190	10	6,000	.16	300	14	6,000	0.12	300	16	4000	0.13	300
3.9	3N9	100	11	>6,000	0.45	170	10	4,000	.19	300	13	6,000	0.14	300	18	4000	0.15	300
4.7	4N7	100	11	>6,000	0.55	160	10	4,000	.21	300	13	4,000	0.16	300	18	3500	0.20	300
5.6	5N6	100	11	>6,000	0.68	140	10	4,000	.23	300	14	4,000	0.18	300	20	3200	0.23	300
6.8	6N8	100	11	>6,000	0.75	130	10	3,900	.25	300	14	4,000	0.22	300	20	2800	0.25	300
8.2	8N2	100	11	5,500	0.86	110	10	3,600	.28	300	14	3,500	0.24	300	21	2400	0.28	300
10	10N	100	11	4,500	1.10	100	10	3,200	.31	300	14	3,400	0.26	300	20	2100	0.30	300
12	12N	100	11	3,700	1.25	90	11	2,700	.40	300	14	2,600	0.28	300	21	1900	0.35	300
15	15N	100	11	3,300	1.50	90	11	2,300	.50	300	15	2,300	0.32	300	22	1600	0.40	300
18	18N	100	-	-	-	-	11	2,100	.55	300	15	2,000	0.35	300	24	1500	0.45	300
22	22N	100	-	-	-	-	11	1,900	.60	300	16	1,600	0.40	300	23	1400	0.50	300
27	27N	100	-	-	-	-	11	1,600	.70	300	16	1,400	0.45	300	23	1300	0.55	300
33	33N	100	-	-	-	-	11	1,300	.80	300	17	1,200	0.55	300	24	1200	0.60	300
39	39N	100	-	-	-	-	11	1,200	1.0	200	18	1,100	0.60	300	23	1000	0.65	300
47	47N	100	-	-	-	-	11	1000	1.2	200	17	900	0.70	300	23	900	0.70	300
56	56N	100	-	-	-	-	11	750	1.3	200	17	900	0.75	300	23	800	0.75	300
68	68N	100	-	-	-	-	11	750	2.0	180	18	700	0.85	300	25	700	0.80	300
82	82N	100	-	-	-	-	10	600	2.2	150	18	600	0.95	300	24	600	0.90	300
100	R10	100	-	-	-	-	10	600	2.5	150	18	600	1.00	300	23	600	0.90	300
120	R12	100	-	-	-	-	10	600	2.7	150	16	500	1.2	300	22	500	0.95	300
150	R15	100	-	-	-	-	-	-	-	-	13	500	1.2	300	22	500	1.00	300
180	R18	100	-	-	-	-	-	-	-	-	13	400	1.3	300	23	400	1.10	300
220	R22	100	-	-	-	-	-	-	-	-	12	400	1.5	300	20	350	1.20	300
270	R27	50	-	-	-	-	-	-	-	-	14	300	1.9	150	20	300	1.30	300
330	R33	50	-	-	-	-	-	-	-	-	-	-	-	-	22	250	1.40	300
390	R39	50	-	-	-	-	-	-	-	-	-	-	-	-	17	250	1.30	300
470	R47	50	-	-	-	-	-	-	-	-	-	-	-	-	17	200	1.50	300

\* 0201 chips are single layer construction utilizing RCD's proprietary film technology.

### DIMENSIONS

Type MHI	L (Length)	W (Width)	T Max. (Thickness)	t (Term. Width)
0201	.022 ±.003 [0.55 ±.075]	.011 ±.002 [0.28 ±.05]	.012 [0.3]	.006 ±.002 [0.15 ±.05]
0402	.039 ±.004 [1.00 ±.10]	.020 ±.004 [0.5 ±.1]	.022 [0.55]	.010 ±.004 [0.25 ±.10]
0603	.063 ±.006 [1.6 ±.15]	.031 ±.006 [0.8 ±.15]	.037 [0.95]	.012 ±.008 [0.3 ±.2]
0805	.079 ±.008 [2.0 ±.2]	.049 ±.008 [1.25 ±.2]	.057 [1.45]	.020 ±.012 [0.5 ±.3]

### P/N DESIGNATION:

MHI0402 - 22N - J T W

RCD Type \_\_\_\_\_  
 Induc. Code: per above table \_\_\_\_\_  
 Tolerance: J= ±5% (std ≥6.8nH),  
 S= ±0.3nH (std <6.8nH), K= ±10%  
 Packaging: B=Bulk, T=Tape&Reel in qtls of 10Kpcs/reel  
 0201 & 0402, 4K pcs 0603 & 0805 (3K pcs 0805 if ≥47nH)  
 Termination: W= Lead-free (100% Sn) \_\_\_\_\_